

OIIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/832,658

DATE: 10/16/2001
TIME: 15:01:47

Input Set : A:\A065us.txt
Output Set : N:\CRF3\10162001\I832658.raw

4 <110> APPLICANT: BIOGEN, INC.
5 Pepinsky, Blake
6 Runkel, Laura
7 Brickelmaier, Margot
8 Whitty, Adrian
9 Hochman, Paula
11 <120> TITLE OF INVENTION: Polymer Conjugates of Interferon Beta-1a
12 and Uses
14 <130> FILE REFERENCE: A065PCT
C--> 16 <140> CURRENT APPLICATION NUMBER: US/09/832,658
C--> 17 <141> CURRENT FILING DATE: 2001-04-11
19 <150> PRIOR APPLICATION NUMBER: 60/104,572
20 <151> PRIOR FILING DATE: 1998-10-16
22 <150> PRIOR APPLICATION NUMBER: 60/120,161
23 <151> PRIOR FILING DATE: 1999-02-16
25 <160> NUMBER OF SEQ ID NOS: 29
27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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30 <211> LENGTH: 549
31 <212> TYPE: DNA
32 <213> ORGANISM: murine
34 <400> SEQUENCE: 1
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36 aacttgcttg gattcctaca aagaagcagc aattttcagt gtcagaagct cctgtggcaa 120
37 ttgaatggga ggcttgaata ctgcctcaag gacaggatga actttgacat ccctgaggag 180
38 attaaagcagc tgcagcagtt ccagaaggag gacgccgcat tgaccatota tgagatgctc 240
39 cagaacatct ttgctatctt cagacaagat tcatctagca ctggctggaa tgagactatt 300
40 gttgagaacc tcctggctaa tgtctatcat cagataaacc atctgaagac agtcctggaa 360
41 gaaaaactgg agaaagaaga tttcaccagg ggaaaactca tgagcagctc gcacctgaaa 420
42 agatattatg ggaggattct gcattacctg aaggccaagg agtacagtca ctgtgcctgg 480
43 accatagtca gagtggaaat cctaaggaac ttttacttca ttaacagact tacaggttac 540
44 ctccgaaac 549
46 <210> SEQ ID NO: 2
47 <211> LENGTH: 183
48 <212> TYPE: PRT
49 <213> ORGANISM: murine
51 <400> SEQUENCE: 2
52 Ser Gly Gly His His His His His Ser Ser Gly Asp Asp Asp Asp
53 1 5 10 15
54 Lys Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe
55 20 25 30
56 Gln Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys
57 35 40 45
58 Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu
59 50 55 60
60 Gln Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu
61 65 70 75 80

ENTERED

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62 Gln Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp
63                               85                      90                      95
64 Asn Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile
65                               100                     105                     110
66 Asn His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe
67                               115                     120                     125
68 Thr Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly
69                               130                     135                     140
70 Arg Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp
71 145                               150                     155                     160
72 Thr Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg
73                               165                     170                     175
74 Leu Thr Gly Tyr Leu Arg Asn
75                               180
77 <210> SEQ ID NO: 3
78 <211> LENGTH: 60
79 <212> TYPE: DNA
80 <213> ORGANISM: human
82 <400> SEQUENCE: 3
83 ttctccggag acgatgatga caagatgagc tacaacttgc ttggattcct acaaagaagc      60
85 <210> SEQ ID NO: 4
86 <211> LENGTH: 39
87 <212> TYPE: DNA
88 <213> ORGANISM: human
90 <400> SEQUENCE: 4
91 gccgctcgag ttatcagttt cggaggtaac ctgtaagtc      39
93 <210> SEQ ID NO: 5
94 <211> LENGTH: 35
95 <212> TYPE: DNA
96 <213> ORGANISM: human
98 <400> SEQUENCE: 5
99 agcttccggg ggccatcatc atcatcatca tagct      35
101 <210> SEQ ID NO: 6
102 <211> LENGTH: 35
103 <212> TYPE: DNA
104 <213> ORGANISM: human
106 <400> SEQUENCE: 6
107 ccggagctat gatgatgatg atgatggccc ccgga      35
109 <210> SEQ ID NO: 7
110 <211> LENGTH: 87
111 <212> TYPE: DNA
112 <213> ORGANISM: human
114 <400> SEQUENCE: 7
115 ccggagacga tgatgacaag atggcttacg ccgctcttgg agccctacaa gcttctagca      60
116 attttcagtg tcagaagctc ctgtggc      87
118 <210> SEQ ID NO: 8
119 <211> LENGTH: 60
120 <212> TYPE: DNA
121 <213> ORGANISM: human

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123 <400> SEQUENCE: 8	
124 gatctagcaa tgetgctgt gctgccctcc tggetgcctt gaatgggagg cttgaatact	60
126 <210> SEQ ID NO: 9	
127 <211> LENGTH: 52	
128 <212> TYPE: DNA	
129 <213> ORGANISM: human	
131 <400> SEQUENCE: 9	52
132 gcctcaagga caggatgaac ttgacatcc ctgaggagat taagcagctg ca	
134 <210> SEQ ID NO: 10	
135 <211> LENGTH: 76	
136 <212> TYPE: DNA	
137 <213> ORGANISM: human	
139 <400> SEQUENCE: 10	60
140 aattgaatgg gagggctgca gcttgcgctg cagacaggat gaactttgac atccctgagg	76
141 agattaagca gctgca	
143 <210> SEQ ID NO: 11	
144 <211> LENGTH: 76	
145 <212> TYPE: DNA	
146 <213> ORGANISM: human	
148 <400> SEQUENCE: 11	60
149 aattgaatgg gaggcttgaa tactgcctca aggacagggc tgcatttgct atccctgcag	76
150 agattaagca gctgca	
152 <210> SEQ ID NO: 12	
153 <211> LENGTH: 51	
154 <212> TYPE: DNA	
155 <213> ORGANISM: human	
157 <400> SEQUENCE: 12	51
158 aattgaatgg gaggcttgaa tactgcctca aggacaggat gaactttgac a	
160 <210> SEQ ID NO: 13	
161 <211> LENGTH: 43	
162 <212> TYPE: DNA	
163 <213> ORGANISM: human	
165 <400> SEQUENCE: 13	43
166 tccctgagga gattgctgca gctgcagctt tcgctgcage tga	
168 <210> SEQ ID NO: 14	
169 <211> LENGTH: 78	
170 <212> TYPE: DNA	
171 <213> ORGANISM: human	
173 <400> SEQUENCE: 14	60
174 cgccgcgttg accatctatg agatgctcgc taacatcgct agcattttca gacaagattc	78
175 atctagcaact ggctggaa	
177 <210> SEQ ID NO: 15	
178 <211> LENGTH: 78	
179 <212> TYPE: DNA	
180 <213> ORGANISM: human	
182 <400> SEQUENCE: 15	60
183 cgccgcattg accatctatg agatgctcca gaacatcttt gctattttcg ctgcagcttc	78
184 atctagcaact ggctggaa	
186 <210> SEQ ID NO: 16	

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188 <212> TYPE: DNA
189 <213> ORGANISM: human
191 <400> SEQUENCE: 16
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193 agacagttct ag 72
195 <210> SEQ ID NO: 17
196 <211> LENGTH: 72
197 <212> TYPE: DNA
198 <213> ORGANISM: human
200 <400> SEQUENCE: 17
201 ggaatgagac cattgttgag aacctcctgg ctaatgtcgc tcatcagata gcacatctgg 60
202 ctgcagttct ag 72
204 <210> SEQ ID NO: 18
205 <211> LENGTH: 44
206 <212> TYPE: DNA
207 <213> ORGANISM: human
209 <400> SEQUENCE: 18
210 ctagctgcaa aactggctgc agctgatttc accaggggaa aact 44
212 <210> SEQ ID NO: 19
213 <211> LENGTH: 69
214 <212> TYPE: DNA
215 <213> ORGANISM: human
217 <400> SEQUENCE: 19
218 ctagaagaaa aactggagaa agaagcagct accgctggaa aagcaatgag cgcgctgcac 60
219 ctgaaaaga 69
221 <210> SEQ ID NO: 20
222 <211> LENGTH: 51
223 <212> TYPE: DNA
224 <213> ORGANISM: human
226 <400> SEQUENCE: 20
227 tattatggga ggattctgca ttacctgaag gccaaaggagt actcacactg t 51
229 <210> SEQ ID NO: 21
230 <211> LENGTH: 163
231 <212> TYPE: DNA
232 <213> ORGANISM: human
234 <400> SEQUENCE: 21
235 catgagcagt ctgcacctga aaagatatta tggggcaatt gctgcatacc tggcagccaa 60
236 ggagtactca cactgtcatg agcagtctgc acctgaaaag atattatggg aggattctgc 120
237 attacctgaa ggccgctgca tactcacact gtgcctggac gat 163
239 <210> SEQ ID NO: 22
240 <211> LENGTH: 87
241 <212> TYPE: DNA
242 <213> ORGANISM: human
244 <400> SEQUENCE: 22
245 catgagcagt ctgcacctga aaagatatta tgggaggatt ctgcattacc tgaaggcaaa 60
246 ggagtacgct gcatgtgcct ggacgat 87
248 <210> SEQ ID NO: 23
249 <211> LENGTH: 50

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Input Set : A:\A065us.txt
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250 <212> TYPE: DNA
251 <213> ORGANISM: human
253 <400> SEQUENCE: 23
254 cgtcagagct gaaatcctag caaactttgc attcattgca agacttacag
256 <210> SEQ ID NO: 24
257 <211> LENGTH: 166
258 <212> TYPE: PRT
259 <213> ORGANISM: human
261 <400> SEQUENCE: 24
262 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
263 1 5 10 15
264 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
265 20 25 30
266 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
267 35 40 45
268 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
269 50 55 60
270 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
271 65 70 75 80
272 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
273 85 90 95
274 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
275 100 105 110
276 Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
277 115 120 125
278 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
279 130 135 140
280 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
281 145 150 155 160
282 Thr Gly Tyr Leu Arg Asn
283 165
285 <210> SEQ ID NO: 25
286 <211> LENGTH: 166
287 <212> TYPE: PRT
288 <213> ORGANISM: human
290 <400> SEQUENCE: 25
291 Met Ala Tyr Ala Ala Leu Gly Ala Leu Gln Ala Ser Ser Asn Phe Gln
292 1 5 10 15
293 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
294 20 25 30
295 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
296 35 40 45
297 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Ala
298 50 55 60
299 Asn Ile Ala Ser Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
300 65 70 75 80
301 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
302 85 90 95
303 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Ala Ala Thr

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VERIFICATION SUMMARY

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Input Set : A:\A065us.txt

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L:16 M:270 C: Current Application Number differs, Replaced Current Application Number
L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date